

FIG.1

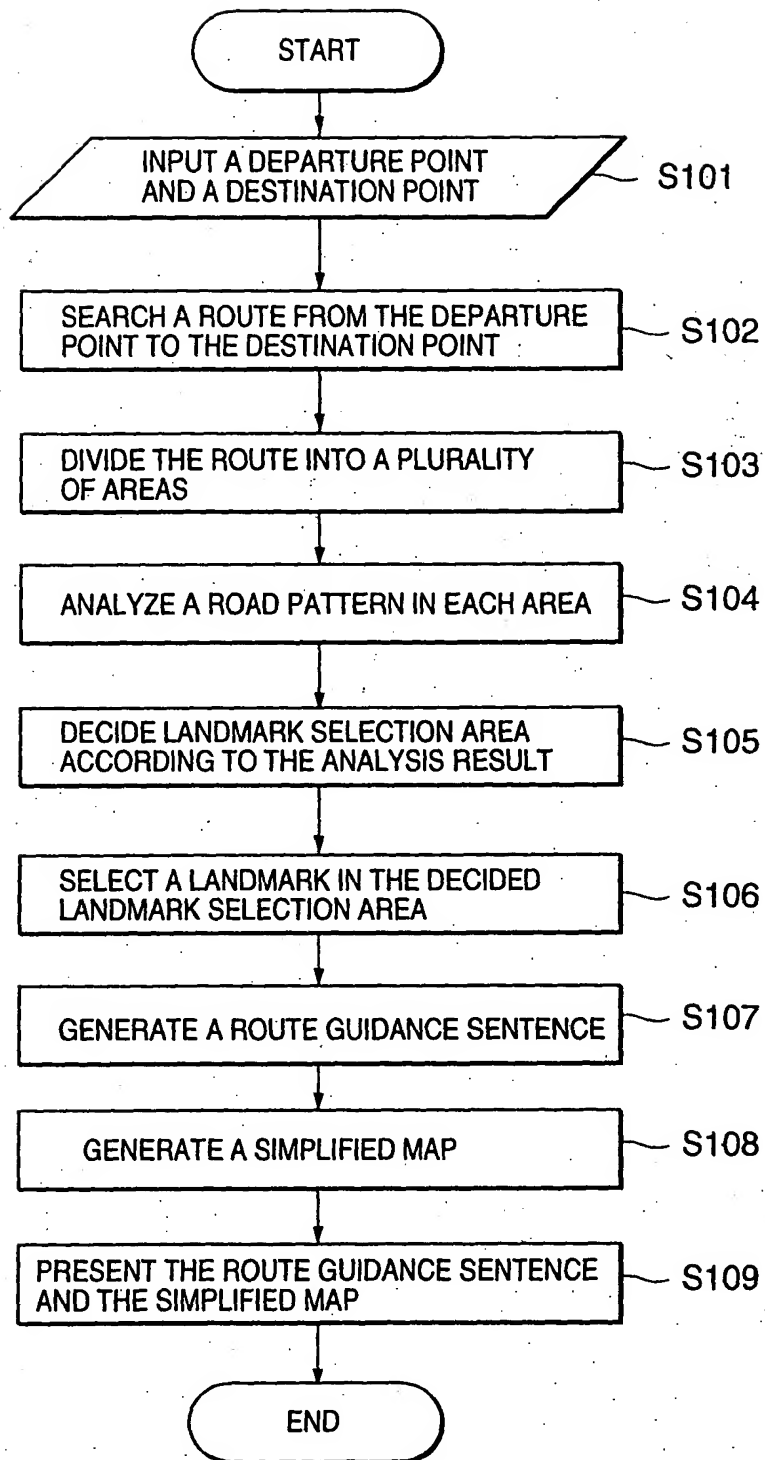


FIG.2

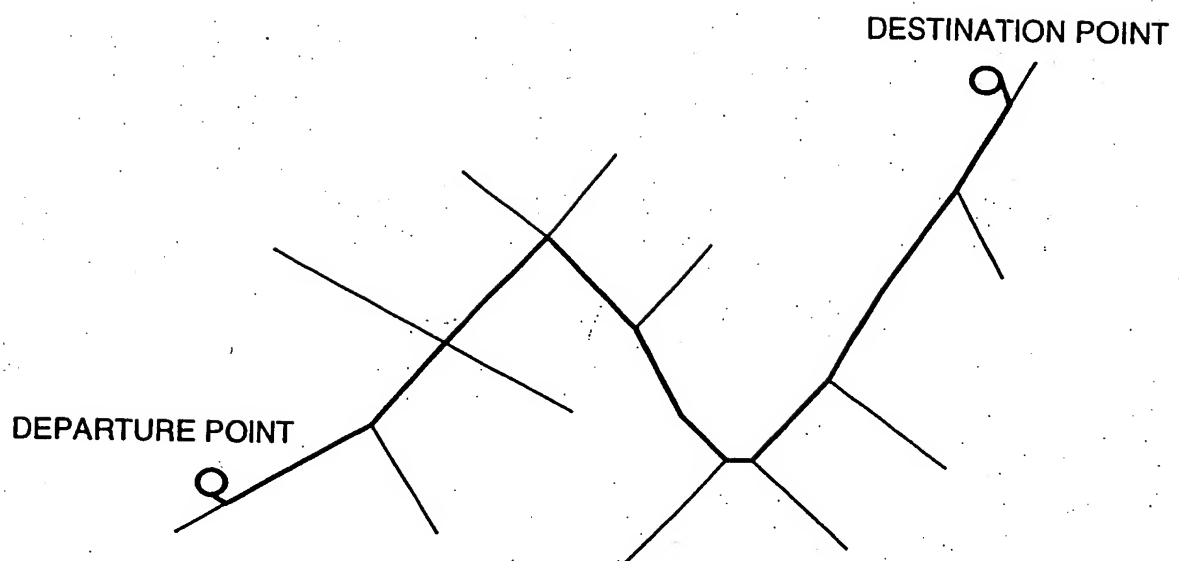


FIG.3

ID	NUMERICAL
POSITION	(X, Y)
NAME	CHARACTER SEQUENCE
THE NUMBER OF ARKS TO BE CONNECTED	NUMERICAL VALUE
ARRANGEMENT OF ARK ID TO BE CONNECTED	ARRANGEMENT OF NUMERICAL VALUE

FIG.4A

ID	NUMERICAL VALUE
POSITION OF STARTING POINT	(X ₀ , Y ₀)
POSITION OF END POINT	(X ₁ , Y ₁)
NAME	CHARACTER SEQUENCE
ROAD WIDTH	NUMERICAL VALUE

FIG.4B

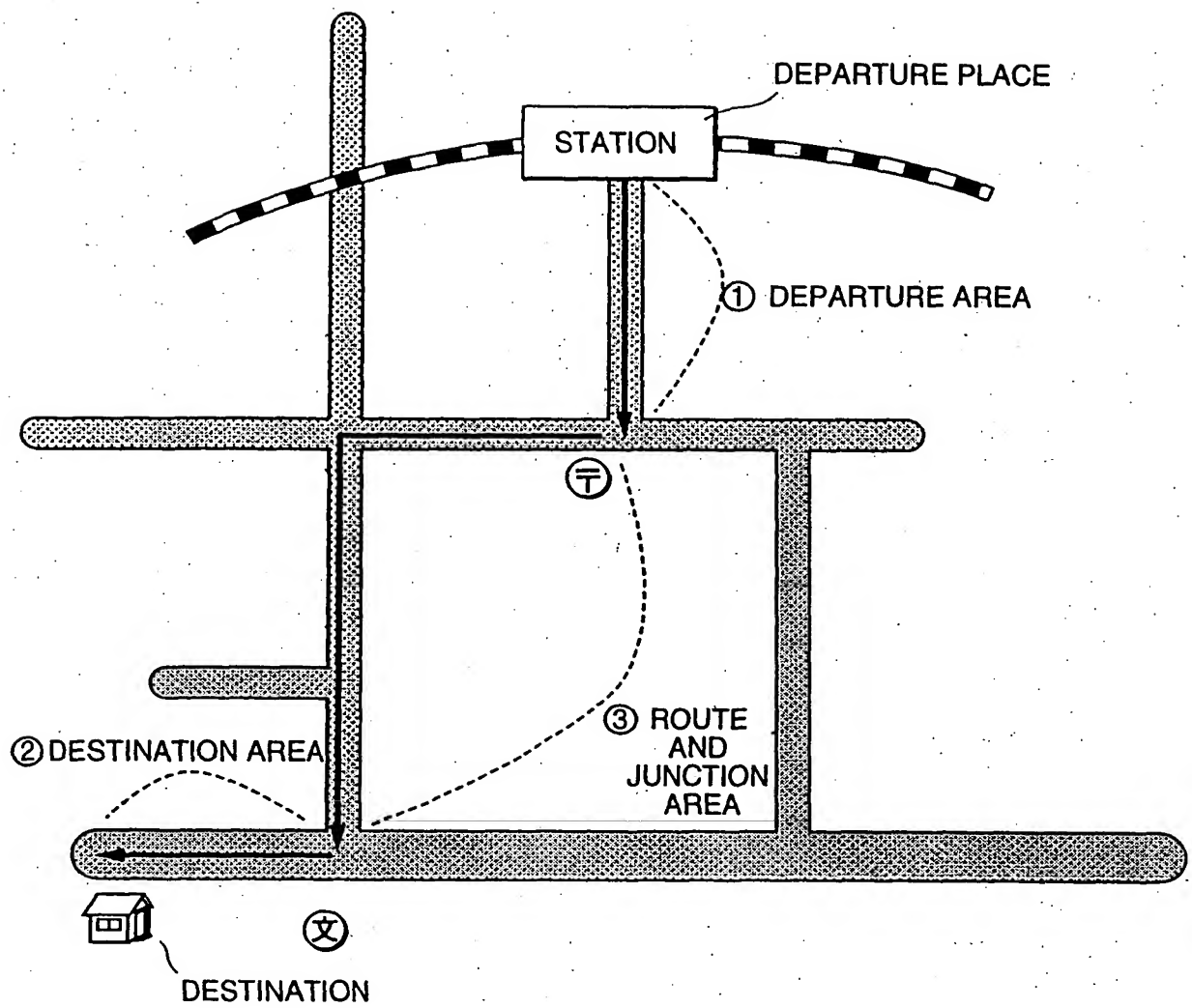


FIG.5

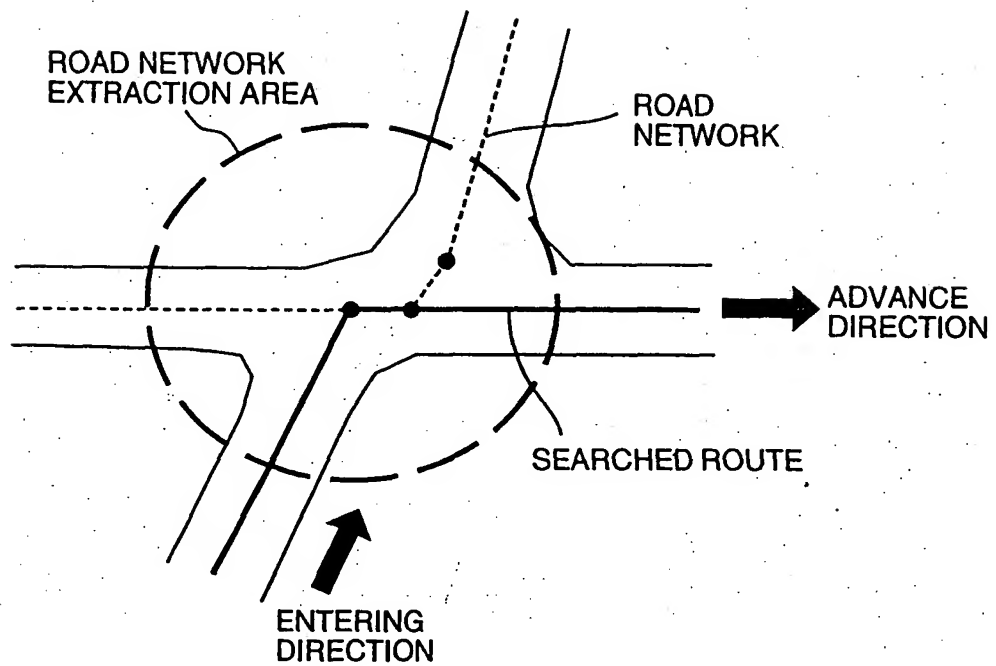


FIG.6A

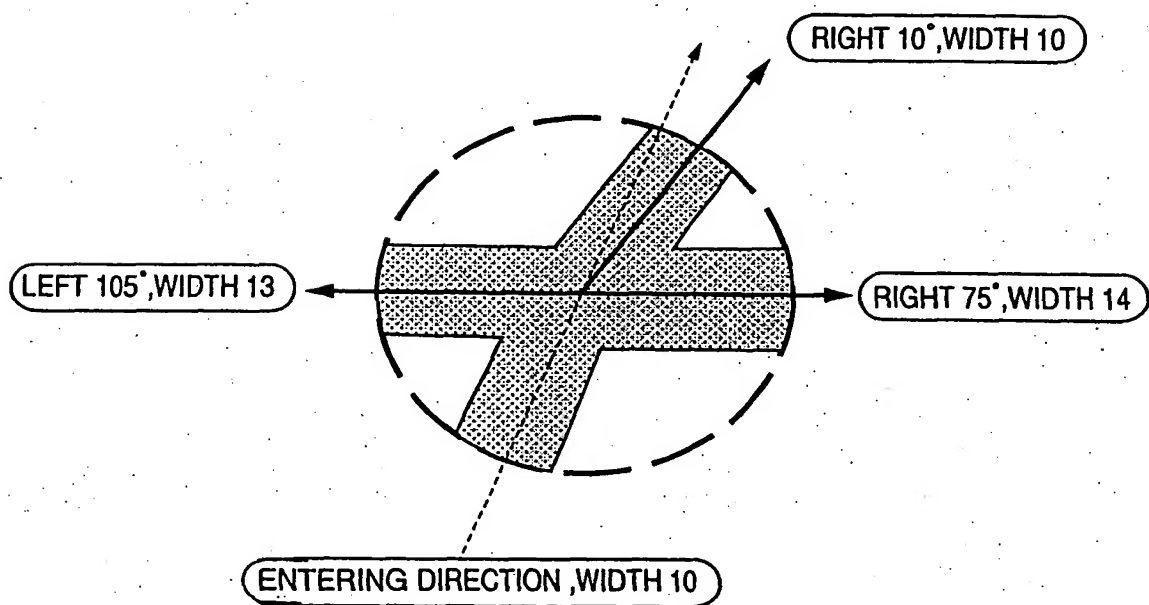


FIG.6B

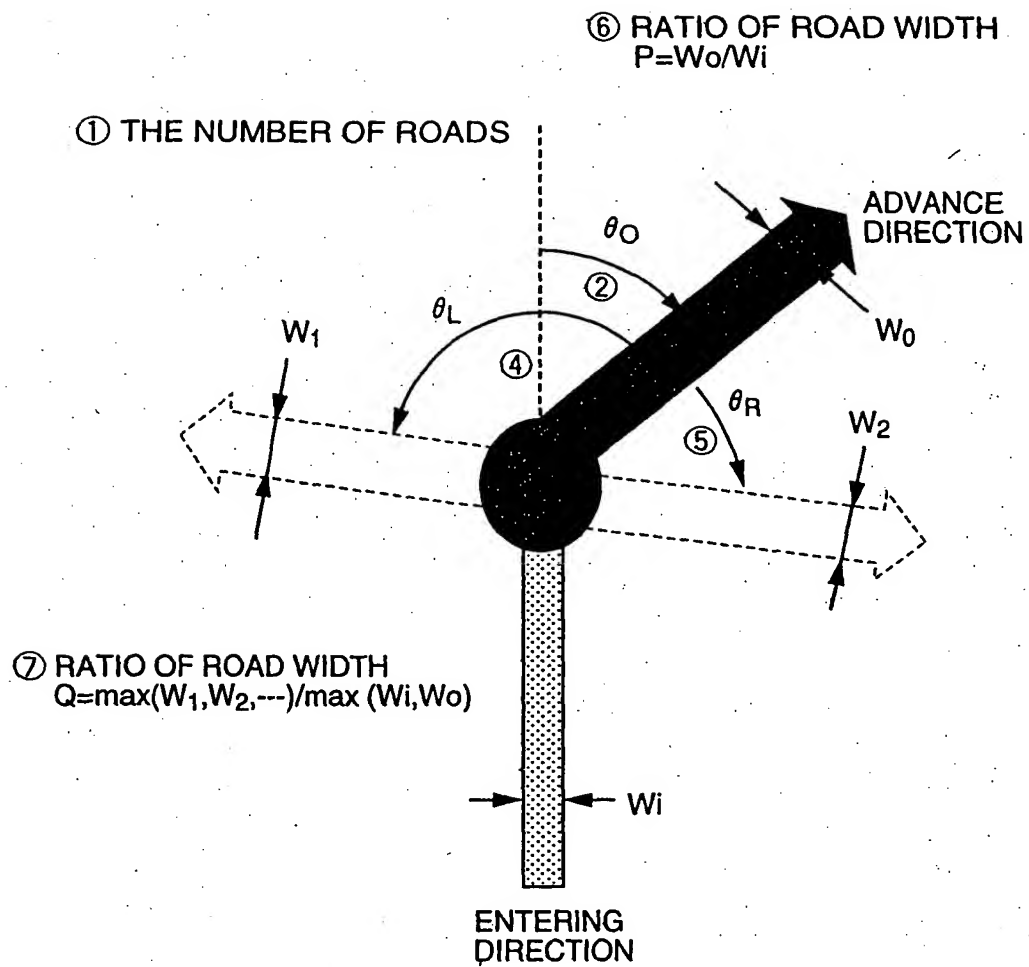
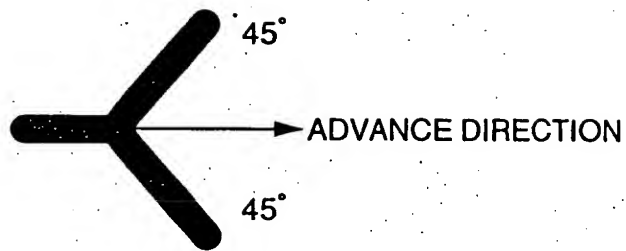


FIG.7

ROAD		EXPRESSION OF ROUTE GUIDANCE	ANGLE (°) OF EACH ROAD		
NUMBER	PATTERN		ANGLE DIFFERENCE FOR ENTERING DIRECTION		
			θ_0	θ_1	θ_2
2	NON- JUNCTION	FOLLOW A ROAD	0~45		
		RIGHT -TURN	45~135		
		LEFT -TURN	225~135		
3	JUNCTION (FORKED ROAD)	T-CROSSING or THE END	70~110	250~290	
		Y-CROSSING	30~70	290~330	
4	JUNCTION (THREE- FORKED ROAD)	GO STRAIGHT, CROSS THE ROAD	340~360 0~20	70~110	250~290
		TURN TO THE RIGHT AT THE JUNCTION	70~110	340~360 0~20	250~290
		TURN TO THE LEFT AT THE JUNCTION	250~290	70~110	340~360 0~20

($\theta_0, \theta_1, \theta_2$: ANGLE DIFFERENCE BETWEEN AN EXTENSION OF ENTERING ROAD AND EACH
ROAD IN A CLOCKWISE DIRECTION)

FIG.8

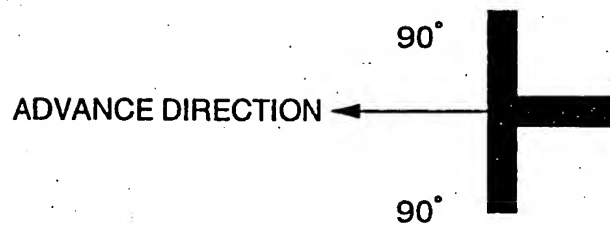


$n=3$

$$\theta_L = \theta_R = 45^\circ$$

JUNCTION PATTERN : Y-CROSSING

FIG.9A

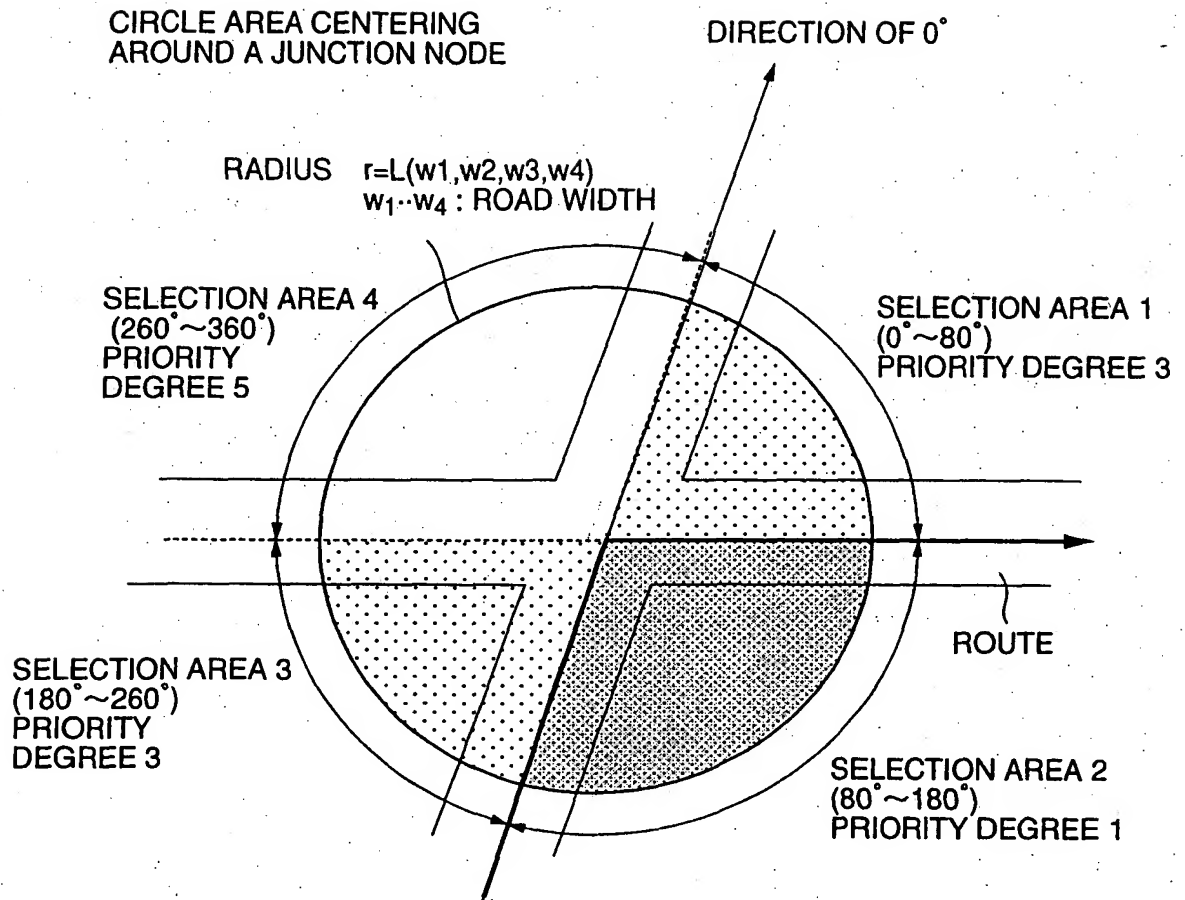


$n=3$

$$\theta_L = \theta_R = 90^\circ$$

JUNCTION PATTERN : T-CROSSING

FIG.9B



ANALYSIS RESULT OF JUNCTION PATTERN BY ROAD
 PATTERN ANALYSIS UNIT

$C(n, \theta_0, \theta_L, \theta_R, P, Q) = \{4, 80, 80, 260, 100, 140\}$

FIG.10

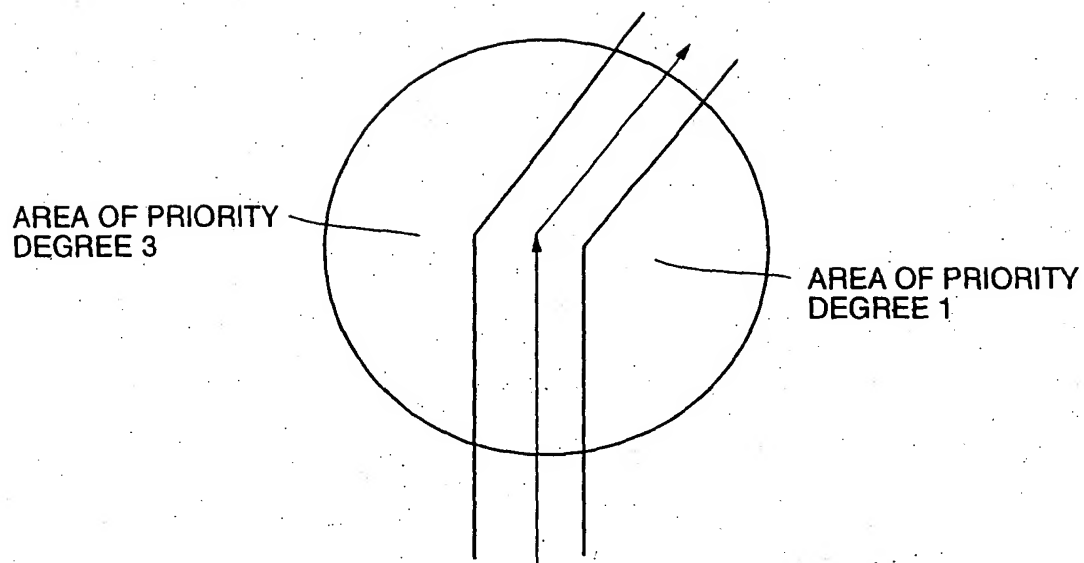


FIG.11A

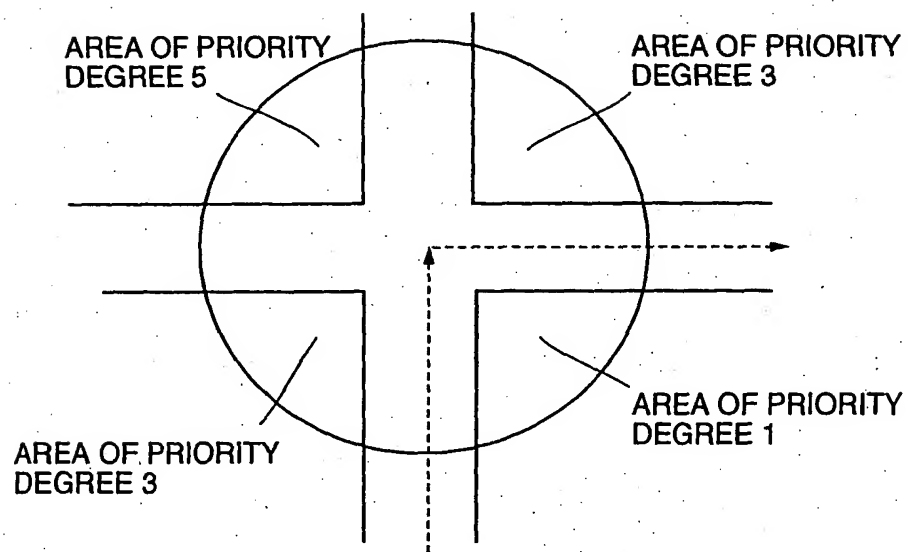


FIG.11B

ID	NUMERICAL VALUE
NAME	CHARACTER SEQUENCE
CLASS	NUMERICAL VALUE
PRIORITY DEGREE	NUMERICAL VALUE
POSITION	(X, Y)(LATITUDE, LONGITUDE)

FIG.12

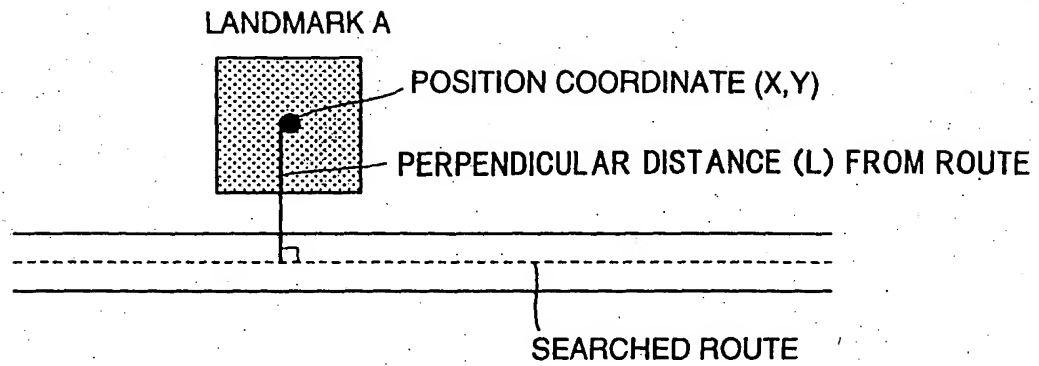


FIG.13A

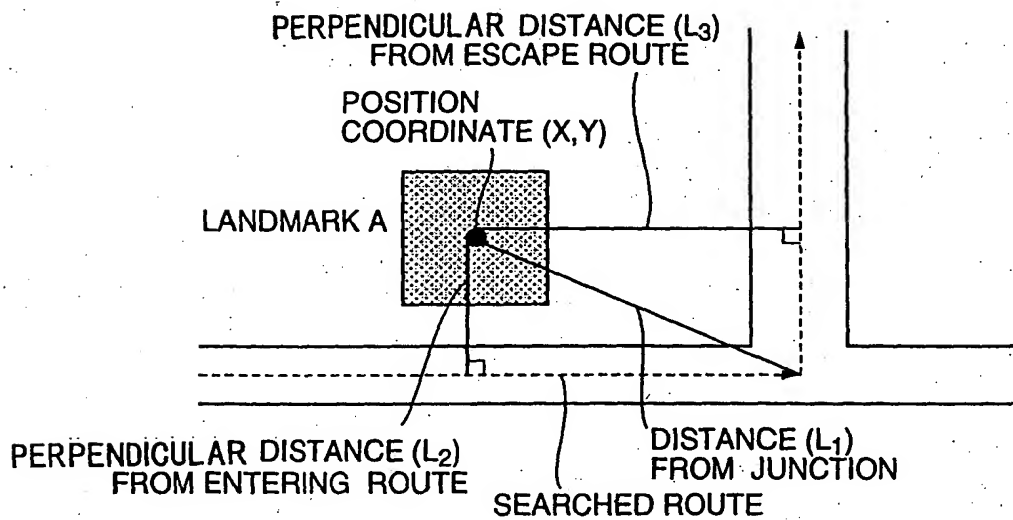


FIG.13B

- ▼ GO OUT KAWASAKI STATION , AND GO FORWARD TO YOKOHAMA BANK BY 50 METERS.
- ▼ GO FORWARD TO THE SOUTH ALONG THE STREET IN FRONT OF YOKOHAMA BANK BY 200 METERS.
- ▼ TURN TO THE LEFT AT T-CROSSING , GO FORWARD BY 20 METERS, AND GO FORWARD ALONG A CRANK BY FOLLOWING THE ROAD.
- ▼ TURN TO THE LEFT AT Y-CROSSING .

FIG.14A

- ▼ GO OUT KAWASAKI STATION , AND GO FORWARD TO YOKOHAMA BANK BY 50 METERS.
- ▼ GO FORWARD TO THE SOUTH ALONG THE STREET IN FRONT OF YOKOHAMA BANK BY 200 METERS.
- ▼ TURN TO THE LEFT AT A JUNCTION, GO FORWARD BY 20 METERS, TURN TO THE RIGHT, GO FORWARD BY 10 METERS, AND GO FORWARD TO THE LEFT BY 30 METERS.
- ▼ GO FORWARD TO THE LEFT AT A JUNCTION .

FIG.14B